

IN THE CLAIMS:

1.-50. (Cancelled)

51. (Currently Amended) A plasma display panel driving method for a plasma display panel in which a plurality of discharge cells are arranged, each discharge cell having a pair of a first electrode and a second electrode, the plasma display panel driving method including repeating the following step steps to perform image display:

5 a set-up step for applying a set-up pulse to each of the plurality of discharge cells, wherein the set-up pulse applied in the set-up step has a waveform that rises at an average voltage change rate of ~~no less than 1 V/ μ s~~ and no greater than 6 V/ μ s ~~9 V/ μ s~~, and that starts to fall at a rate greater than the average voltage change rate at a time period of the rising.

52. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than 5.25 V/ μ s ~~V/ μ s~~ and no greater than 6 V/ μ s ~~9 V/ μ s~~.

53. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than 4.2 V/ μ s ~~V/ μ s~~ and no greater than 5.25 V/ μ s ~~V/ μ s~~.

54. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $3.5 \frac{V}{\mu s}$ and no greater than $4.2 \frac{V}{\mu s}$.

55. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $2.625 \frac{V}{\mu s}$ and no greater than $3.5 \frac{V}{\mu s}$.

56. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $2.1 \frac{V}{\mu s}$ and no greater than $2.625 \frac{V}{\mu s}$.

57. (Currently Amended) The plasma display panel driving method according to Claim 51,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $1 \frac{V}{\mu s}$ and no greater than $2.1 \frac{V}{\mu s}$.

58. (Currently Amended) A plasma display panel driving method for a plasma display panel in which a plurality of discharge cells are arranged, each discharge cell having a pair of a first electrode and a second electrode, the plasma display panel driving method repeating including the following steps to perform image display:

5 a set-up step for applying a set-up pulse to each of the plurality of discharge cells;
and
a write step for applying a write pulse to selected discharge cells of the plurality
of discharge cells based on image data input,
wherein in the set-up step, the set-up pulse is applied via the first electrodes and
10 has a waveform that rises at an average voltage change rate of ~~no less than $1\text{ V}/\mu\text{s}$ and no greater~~
than $6\text{ V}/\mu\text{s}$ ~~$9\text{ V}/\mu\text{s}$~~ and that starts to fall at a rate greater than the average voltage change rate at
a time period of the rising, and
wherein in the write step, the write pulse is applied to the selected discharge cells
via the first electrodes. ~~[[,]]~~

59. (Currently Amended) The plasma display panel driving method according to
Claim 58,

wherein the set-up pulse applied in the set-up step rises at the average voltage
change rate of no less than $5.25\text{ V}/\mu\text{s}$ ~~$\text{V}/\mu\text{s}$~~ and no greater than $6\text{ V}/\mu\text{s}$, ~~$9\text{ V}/\mu\text{s}$~~ .

60. (Currently Amended) The plasma display panel driving method according to
Claim 58,

wherein the set-up pulse applied in the set-up step rises at the average voltage
change rate of no less than $4.2\text{ V}/\mu\text{s}$ ~~$\text{V}/\mu\text{s}$~~ and no greater than $5.25\text{ V}/\mu\text{s}$, ~~$\text{V}/\mu\text{s}$~~ .

61. (Currently Amended) The plasma display panel driving method according to
Claim 58,

wherein the set-up pulse applied in the set-up step rises at the average voltage
change rate of no less than $3.5\text{ V}/\mu\text{s}$ ~~$\text{V}/\mu\text{s}$~~ and no greater than $4.2\text{ V}/\mu\text{s}$, ~~$\text{V}/\mu\text{s}$~~ .

62. (Currently Amended) The plasma display panel driving method according to Claim 58,

wherein the set-up pulse applied in the setup step rises at the average voltage change rate of no less than $2.625 \frac{V}{\mu s}$ ~~$V/\mu s$~~ and no greater than $3.5 \frac{V}{\mu s}$ ~~$V/\mu s$~~ .

63. (Currently Amended) The plasma display panel driving method according to Claim 58,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $2.1 \frac{V}{\mu s}$ ~~$V/\mu s$~~ and no greater than $2.625 \frac{V}{\mu s}$ ~~$V/\mu s$~~ .

64. (Currently Amended) The plasma display panel driving method according to Claim 58,

wherein the set-up pulse applied in the set-up step rises at the average voltage change rate of no less than $1 \frac{V}{\mu s}$ ~~$V/\mu s$~~ and no greater than $2.1 \frac{V}{\mu s}$ ~~$V/\mu s$~~ .

65. (Currently Amended) A plasma display apparatus comprising:

a plasma display panel that includes a plurality of pairs of a first electrode and a second electrode, and

a plurality of discharge cells, each discharge cell having one of the pairs of the
5 first electrode and the second electrode; and

a driving circuit operable to drive the plasma display panel by ~~repeating~~ including a set-up period of applying a set-up pulse to the discharge cells, wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse having a waveform that rises at an

average voltage change rate of ~~no less than 1 V/ μ s~~ and no greater than 6 V/ μ s ~~V/ μ s~~, and that
10 starts to fall at a rate greater than the average voltage change rate at a time period of the rising.

66. (Currently Amended) The plasma display apparatus according to Claim 65,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than 5.25 V/ μ s ~~V/ μ s~~ and no
greater than 6 V/ μ s, ~~9 V/ μ s~~.

67. (Currently Amended) The plasma display apparatus according to Claim 65,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than 4.2 V/ μ s ~~V/ μ s~~ and no
greater than 5.25 V/ μ s, ~~V/ μ s~~.

68. (Currently Amended) The plasma display apparatus according to Claim 65,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than 3.5 V/ μ s ~~V/ μ s~~ and no
greater than 4.2 V/ μ s, ~~V/ μ s~~.

69. (Currently Amended) The plasma display apparatus according to Claim 65,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than 2.625 V/ μ s ~~V/ μ s~~ and no
greater than 3.5 V/ μ s, ~~V/ μ s~~.

70. (Currently Amended) The plasma display apparatus according to Claim 65,

wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse that rises at the average voltage change rate of no less than $2.1 \frac{V}{\mu s}$ and no greater than $2.625 \frac{V}{\mu s}$.

71. (Currently Amended) The plasma display apparatus according to Claim 65,

wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse that rises at the average voltage change rate of no less than $1 \frac{V}{\mu s}$ and no greater than $2.1 \frac{V}{\mu s}$.

72. (Currently Amended) A plasma display apparatus comprising:

a plasma display panel that includes a plurality of pairs of a first electrode and a second electrode, and

a plurality of discharge cells, each discharge cell having one of the pairs of the first electrode and the second electrode; and

a driving circuit operable to drive the plasma display panel by repeating including a set-up period of applying a set-up pulse to the discharge cells, and

a write period of applying a write pulse to selected discharge cells of the plurality of discharge cells based on image data input,

wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse via the first electrodes, the set-up pulse having a waveform that rises at an average voltage change rate of no less than $1 \frac{V}{\mu s}$ and no greater than $6 \frac{V}{\mu s}$ and that starts to fall at a rate greater than the average voltage change rate at a time period of the rising, and

wherein the driving circuit is operable to apply, during the write period, the write
15 pulse to the selected discharge cells via the first electrodes.

73. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than $5.25 \frac{V}{\mu s}$ ~~$\frac{V}{\mu s}$~~ and no
greater than $6 \frac{V}{\mu s}$, ~~$9 \frac{V}{\mu s}$~~ .

74. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than $4.2 \frac{V}{\mu s}$ ~~$\frac{V}{\mu s}$~~ and no
greater than $5.25 \frac{V}{\mu s}$, ~~$\frac{V}{\mu s}$~~ .

75. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than $3.5 \frac{V}{\mu s}$ ~~$\frac{V}{\mu s}$~~ and no
greater than $4.2 \frac{V}{\mu s}$, ~~$\frac{V}{\mu s}$~~ .

76. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-
up pulse that rises at the average voltage change rate of no less than $2.625 \frac{V}{\mu s}$ ~~$\frac{V}{\mu s}$~~ and no
greater than $3.5 \frac{V}{\mu s}$, ~~$\frac{V}{\mu s}$~~ .

77. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse that rises at the average voltage change rate of no less than $2.1 \frac{V}{\mu s}$ and no greater than $2.625 \frac{V}{\mu s}$.

78. (Currently Amended) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, the set-up pulse that rises at the average voltage change rate of no less than $1 \frac{V}{\mu s}$ and no greater than $2.1 \frac{V}{\mu s}$.

79. (New) The plasma display apparatus according to Claim 72,
wherein the driving circuit is operable to apply, during the set-up period, a portion of the set-up pulse having a characteristic of rising at an average voltage change rate of no greater than $6 \frac{V}{\mu s}$ from 0 volts to a peak voltage and falling from the peak voltage to 0 volts at a rate greater than the average voltage change rate at a time period of the rising.

80. (New) A plasma display panel driving method for a plasma display panel in which a plurality of discharge cells are arranged, each discharge cell having a pair of a first electrode and a second electrode, the plasma display panel driving method including the following step to perform image display:

- 5 a set-up step for applying a set-up pulse to each of the plurality of discharge cells, wherein a portion of the set-up pulse applied in the set-up step has a waveform that rises at an average voltage change rate of no greater than $6 \text{ V}/\mu\text{s}$ from 0 volts to a peak voltage and that falls from the peak voltage to 0 volts at a rate greater than the average voltage change rate at a time period of the rising.

81. (New) In a plasma display panel driving method for a plasma display panel in which a plurality of discharge cells are arranged, each discharge cell having a pair of a first electrode and a second electrode, the plasma display panel driving method applying a voltage waveform to perform an image display, the improvement comprising:

- 5 a set-up step for applying a set-up pulse to each of the plurality of discharge cells, wherein a portion of the set-up pulse applied in the set-up step has a waveform that rises at an average voltage change rate of no greater than $6 \text{ V}/\mu\text{s}$ from a rising set up low point to a maximum value and falls at a rate greater than the average voltage change rate at a time period of the rising to a falling setup low point.